CONTENTS TO VOLUME 31

Part 1 February 1984

Bifurcation of a free boundary equilibrium. A. Turnbull 1

Coupling to Z mode near critical angle. E. Mjølhus 7

Resistive convection in a cylindrical plasma. L. Gomberoff 29

Ion temperatures inferred from neutron yield measurements in the TRISOPS IIX plasma vortex structure generator. D. R. Wells, P. Ziajka and J. Tunstall 39

Dissipation by thermal forces in plasmas. D. E. McClelland and R. R. Burman 47

On the nonlinear development of the Langmuir modulational instability. R. O. Dendy and D. ter Haar 67

The effect of fast-time-scale turbulence on magnetohydrodynamical behaviour. R. O. Dendy and D. ter Haar 81

Fluid theory for fluctuations in cold inhomogeneous plasmas. P. Uddholm 93

Transport of neutrals in the outermost region of a tokamak plasma. R. S. Chhabra 105

The relaxation zone behind normal shock waves in a dusty reacting gas. Part 2. Diatomic gases. O. Igra and G. Ben-Dor 115

Plasma models and rescaling methods. P. Lotte and M. R. Feix 141

Propagation of hydromagnetic waves in a cold plasma mixed with hot electrons. H. Hamabata and T. Namikawa 153

On the influence of the Hall effect on the spectrum of the ideal magnetohydrodynamic cylindrical pinch. A. Lifshitz, E. Fedorov and U. Schaper 173

Part 2 April 1984

Nonlinear dispersion of surface waves in a plasma column. D. Grozev and A. Shivarova 177

Electrostatic and electromagnetic eigenmodes near the electron and ion gyrofrequencies in a cylindrical plasma. R. W. Boswell 193

Effects of boundary conditions on radial mode structure of whistlers. R. W. Boswell 197

Axially symmetric self-focusing of whistler waves. V. I. Karpman, R. N. Kaufman and A. G. Shagalov 209

Excitation of whistler mode instability due to slow cyclotron interaction in an inhomogeneous beam–plasma system. H. A. Shah and V. K. Jain 225

Pseudo-three-dimensional convective cell motion in a magnetized plasma. P. K. Shukla and M. Y. Yu 231

Electromagnetic instability supported by a rippled magnetically focused relativistic electron beam. S. Cuperman, F. Petran and A. Gover 239

A numerical solution of the kinetic equations for a spectrum of Langmuir turbulence. D. Hayward 253

Unified theory of whistler mode instability in presence of a parallel electric field. I. M. L. Das and R. P. Singh 263

Magnetohydrodynamic plasma instability driven by Alfvén waves excited by cosmic rays. J. F. McKenzie and G. M. Webb 275

Transformation and amplification of waves in a non-uniform plasma involving monoenergetic electron beam. K. P. Shamrai 301

Effects of thermal spread on the space charge limit of an electron beam. E. A. Coutsias 313

A note on Lindhard's representation for transverse and longitudinal dielectric constants. D. G. Frood and B. K. P. Scaife 319

Transformation approximation for the plasma dispersion function and application to electrostatic waves. M. Sato 325

Part 3 June 1984

Magnetohydrodynamic properties near an X-type magnetic neutral line. B. K. Shivamoggi 333

Burgers' equation and cosmic ray shocks. G. M. Webb and J. F. McKenzie 337

Distribution function and diffusion of α-particles in DT fusion plasma. M. A. Libermann and A. L. Velikovich 369

On the ignition of a self-sustained fusion reaction in a dense DT plasma. M. A. Liberman and A. L. Velikovich 381

Temporal Alfvén wave echoes in an inhomogeneous plasma. I. C. Rae 395

A general method for calculating the self-induced magnetic force of an axisymmetric toriodal current. S. Bobbio and G. Rubinacci 415

Nonlinear generation of electromagnetic waves in a magnetoplasma. G. Murtaza and P. K. Shukla 423

Some properties of solitary BGK waves in a collisionless plasma. H. A. Shah and V. A. Turikov 437

Linear tearing mode stability for low-q cylindrical tokamaks. M. Rosenblum 447

Parametric decay of Langmuir waves in an electron beam–plasma system. J. E. Willett and Y. Aktas 465

Turbulent bremsstrahlung instability of whistler mode in the presence of enhanced ion–acoustic fluctuations. S. N. Sarma, M. Nambu and S. Bujarbarua 477

On whistler-mode trapping in the magnetospheric ducts. S. S. Sazhin 487

Author Index to Volume 31 495